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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,219	04/05/2006	Nigel-Philip Cox	2002P14335WOUS	6983

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Siemens Corporation  
Intellectual Property Department  
170 Wood Avenue South  
Iselin, NJ 08830

EXAMINER
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CARRILLO, BIBI SHARIDAN

ART UNIT	PAPER NUMBER
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1746

MAIL DATE	DELIVERY MODE
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06/28/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/531,219

Applicant(s)

COX ET AL.

Examiner

Sharidan Carrillo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/14/05, 5/23/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 is indefinite because the claim fails to positively recite a step of removing a layer. Claim 13 is indefinite because it fails to recite an acid bath, in view of the claim language recited in the dependent claims. Claim 15 is indefinite because it recites "two different acid baths", however, claim 15 is dependent on claim 13, which fails to recite an acid bath. Claim 15 is further indefinite because it is unclear what is meant by "different acid baths". Are the baths different with respect to concentration, temperature, components, different batches or aliquots of the same solution. How are the baths different? Claim 16 is indefinite because "a second acid bath" is dependent on claim 13, which fails to recite a first acid bath. Claim 17 is indefinite because it is unclear whether nitric, phosphoric, and hydrochloric is used in the first acid of claim 1 or whether nitric and phosphoric are used in the first acid and HCl is used in the second acid bath. Claim 18 is indefinite because it is unclear whether "the bath" refers to the salt bath or the first acid. Claim 19 is indefinite because the first acid treatment or the further acid treatment lacks positive antecedent basis. Claim 20 is indefinite for similar reasons. Additionally, the phrase "the flow grinding" lacks positive antecedent basis. Claim 15 is further indefinite because it is unclear what is meant by "different acid

baths". Are the baths different with respect to concentration, temperature, components, different batches or aliquots of the same solution. How are the baths different? Claim 21 is indefinite because it is not further limiting.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 13, 15-21, 23 and 25-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Wustman et al. (US2005/0161439).

Wustman teaches removing an aluminide coating from a turbine (paragraph 33) comprising treating the turbine component in a salt bath comprising NaOH and KOH (paragraph 52), treating the substrate with an acid comprising nitric acid. In paragraph 6, Wustman teaches that it is well known to strip the coating from the substrate with combinations of acids including nitric acid, phosphoric acid. The limitation of adding an oxygen donor to the salt bath are met since Wustman teaches an aqueous caustic solution and water inherently serves as an oxygen donor. Re claim 15, refer to paragraphs 61 and 63. Re claim 16, refer to paragraph 35 which teaches HCl can be added to the nitric acid bath. Re claim 17, refer to paragraph 6. Re claim 18, refer to

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paragraph 49. Re claim 19 and in view of the indefiniteness of claim 20, refer to paragraphs 46 and 77. Additionally grit blasting would inherently produce an aluminide coating having smaller particles, thereby the limitations of grinding the turbine component would inherently be met. Re claim 21, Wustman teaches water which reads on an oxygen donor. Re claim 23, the removal of aluminide (i.e. metal oxide) into the caustic bath reads on applicant's claimed limitation. Re claim 25, Wustman teaches rinsing between chemical treatment steps. Re claim 26, refer to paragraph 36.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 14 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wustman et al. (US2005/0161439).

Re claim 14, Wustman fails to teach the ratio of KOH to NaOH. Wustman teaches using a combination of KOH, NaOH. In the absence of a showing of criticality, it would have been within the level of the skilled artisan to adjust the concentration of the bases as needed in order to effectively strip the aluminide coating from the substrate surface. Re claim 24, Wustman fails to teach drying. It would have been within the level of the skilled artisan to dry the substrate in order to remove any solvent residue and or water stain prior to performing additional steps such as recoating.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wustman et al. (US2005/0161439) in view of Fusnocht (3532591).

Wustman fails to teach the oxygen donor of Na<sub>2</sub>O. However, Wustman teaches an aqueous solution of NaOH. Fusnocht teaches that reagent or technical grade NaOH has normal impurities which include Na<sub>2</sub>O (col. 2, lines 24-27). Since Wustman teaches an NaOH bath and Fusnocht teaches NaOH includes impurities such as Na<sub>2</sub>O, one would reasonably expect the NaOH bath of Wustman to also include Na<sub>2</sub>O impurities, thereby meeting the limitations of claim 22.

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8. Claims 13-14, 18-21, and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (6544022) in view of Dohogne (3546084).

Evans teaches cleaning a turbine blade comprising airfoils by treating with an aqueous alkaline solution comprising NaOH (col. 4, lines 40-45), then treating with an acid bath comprising nitric acid (col. 6, lines 10-20).

Evans fails to teach KOH and further fails to teach phosphoric acid. Dohogne teaches treating a jet engine component (i.e. turbine blade, col. 1, lines 35-40) with an alkaline bath of KOH and NaOH and further with an acidic bath comprising a mixture of 2 or more minerals in order to remove metal oxides and unwanted residue from the substrate surface (col. 2, lines 40-45). It would have been within the level of the skilled artisan to have modified the method of Evans to include KOH in the alkaline bath and phosphoric acid in the acid bath since Dohogne teaches using conventional hydroxides and mineral acids for effectively cleaning turbine components. It is prima facie obvious to combine two compositions each taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose. See *In re Kerkhoven*, 205 USPQ 1069, 1072. Additionally, the combination of mineral acids of HCl, HNO<sub>3</sub>, and H<sub>3</sub>PO<sub>4</sub> for cleaning of turbine components are well known in the art, as evidenced by Martinou et al. (4707191). Re oxygen donor, the teaching of an "aqueous solution" of NaOH meets the limitation since water is an oxygen donor. Re claim 14, col. 2, lines 40-43 of Dohogne. Re claim 18, refer to claim 1 of Dohogne. Re claim 19 and in view of the indefiniteness of claim 20, refer to col. 3, lines 55-68. Re claim 21, Evans teaches an aqueous solution of NaOH, wherein water

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functions as an oxygen donor. Re claim 23, Dohogne teaches removing metal oxides from the blades by treating with NaOH/KOH. Since the metal oxides are present in the caustic bath and metal oxides are oxygen donors, the limitations are met by Dohogne. Re claims 24-25, refer to col. 6, lines 49-57. Re claim 26, Evans teaches ferric sulfate as a complexing agent in the alkaline solution.

9. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (6544022) in view of Dohogne (3546084), as applied to claims 13-14, 18-12 and 23-26, as described in paragraph 8 above, and further in view of Martinou et al. (4707191).

Evans in view of Dohogne teaches the invention substantially as claimed with the exception of two acid baths. Martinou teaches a method of cleaning turbojet engine parts comprising turbine blades by treating with an alkaline bath followed by two acid baths (col. 4, lines 35-55). Col. 5, lines 40-45 teaches the acid bath comprising HCl, nitric, and phosphoric acid. Col. 4, lines 55-60 teaches a second acid bath for eliminating residual oxides. It would have been obvious to the skilled artisan to have modified the method of Evans, to include additional acid baths, as taught by Martinou, for purposes of removing residual oxides.

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (6544022) in view of Dohogne (3546084), as applied to claims 13-14, 18-12 and 23-26, as described in paragraph 8 above, and further in view of Fusnocht (3532591).

Evans fails to teach the oxygen donor of Na<sub>2</sub>O. However, Evans teaches an aqueous NaOH bath. Fusnocht teaches that reagent or technical grade NaOH has



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normal impurities which include Na<sub>2</sub>O (col. 2, lines 24-27). Since Evans teaches an NaOH bath and Fusnocht teaches NaOH includes impurities such as Na<sub>2</sub>O, one would reasonably expect the NaOH bath of Evans to also include Na<sub>2</sub>O impurities, thereby meeting the limitations of claim 22.

### ***Double Patenting***

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 13-26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4-10, and 13-16 of copending Application No. 11/502487. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are directed to removing a layer by treating with a salt bath containing an oxygen donor and treating with an acid bath.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Saddington teaches sodium oxide in caustic solutions. Spence teaches a salt bath. Hill teaches sodium oxide in NaOH. Hanink et al. teach cleaning turbine blades with caustic and acid. Eerson teaches treating with a base then an acid. Arden teaches a method of descaling the metal parts. Kuhn teaches removing metal scales with NaOH and sodium oxide. Fournes teaches repairing alloy parts with alkaline and acid baths. Sangetta et al. teach removing aluminide material with an acidic solution. Czech teaches treating airfoils with aluminide oxide coatings. Wang teaches cleaning a component with acidic/basic solution.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharidan Carrillo whose telephone number is 571-272-1297. The examiner can normally be reached on M-W 6:30-4:00pm, alternating Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sharidan Carrillo  
Primary Examiner  
Art Unit 1746

bsc



SHARIDAN CARRILLO  
PRIMARY EXAMINER